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10/539,288

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GOULIAEV7A

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EXAMINER

DAUNER, JOSEPH

ART UNIT

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1634

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,288	Applicant(s) GOULIAEV ET AL.	
	Examiner JOSEPH DAUNER	Art Unit 1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-127 is/are pending in the application.
- 4a) Of the above claim(s) 1-78, 87, 105-117 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 79-86, 88-104 and 118-127 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/14/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the papers filed 1/31/2011. Currently, claims 1-127 are pending. Claims 1-78, 87, 105-117 have been withdrawn as drawn to non-elected subject matter.

Election/Restrictions

2. Applicant's election with traverse of Group III, Claims 79-104 in the reply filed on 1/31/2011 is acknowledged.

3. The traversal is on the ground(s) that the examiner incorrectly identified the special technical feature shared among the groups. Applicant further argues that unity of invention is not broken because the cited art of Dower (Pat. 5,770,358) does not teach the limitations of shared technical feature. This is not found persuasive because the bifunctional molecule embodied by broadest reasonable interpretation of claim 79 is taught by Dower. The linking technical feature is defined by the product of claim 79. Claim 79 is a product claim that includes process language to define the product. The determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. See MPEP 2113. Additionally, claim 79 contains several 35 USC 112-Second paragraphs issues, as described below. Therefore, the bifunctional molecule of claim 79 is broadly and reasonably interpreted as being comprised of a molecule part. As explained in the previous lack of unity analysis, Dower teaches a bifunctional molecule (*See Example 3*). The bifunctional (*i.e. bifunctional bead material, col. 29, lines 32-34, Fig. 7*) is comprised of a molecule part (*Example 3, Fig. 7*). The process of making a product does not define over a prior art

product made by a different process. Applicant has provided no evidence that the structure of the claimed bifunctional molecule is differs from Dower's bifunctional bead material.

The requirement is still deemed proper and is therefore made FINAL.

4. Applicant argues the election of species requirement is improper because the species are not mutually exclusive. The examiner finds this argument persuasive with respect to claims 80, 82, 85, 88, 91, 94 and 97. The requirement is withdrawn. The election of species requirement for claim 104 is maintained. Applicant's election of "polycyclic compounds comprising aromatic cycles", "peptide bonds" and the molecular group "-NHCO-" is acknowledged.

5. Examiner notes applicant's comment on page 3 of the response stating:

Applicants believe that for clarity it may be advantageous to amend the claims to recite a "bifunctional complex" rather than a "bifunctional molecule", lest the latter be confused with the molecule part" that is one of its components.

However, applicant has not amended the claims. Because the claims have not been amended, the examiner can only examine the claims as they are currently presented.

6. Applicant asserts that the specification clearly equates "bifunctional complex" and "bifunctional molecule". It is noted that the specification does not appear to equate the terms "bifunctional complex" and "bifunctional molecule". Applicant does not point to any passage in the specification where the terms are identified specifically as being interchangeable. In contrast to applicant's assertion, the use of both terms in the specification does not mean that the terms are interchangeable. The examiner will examine the claims as being drawn to a bifunctional molecule as currently presented.

Priority

7. This application claims priority to PCT/DK03/00921 filed 12/19/2003 which claims benefit of Provisional Applications 60/434,386 filed 12/19/2002 and 60/507,111 filed 10/1/2003. The Provisional Application 60/434,386 filed 12/19/2002 upon which priority is claimed does not provide adequate support under 35 U.S.C. 112 for claims 122 and 123. Claims 122 and 123 are drawn to a bifunctional molecule wherein the molecule part of the molecule comprises a cyclic sequence of functional entities. Provisional Application 60/434,386 does not disclose this subject matter. Therefore, claims 122 and 123 do not receive the effective filing date of Provisional application 60/434,386.

This application claims priority to applications DENMARK PA 2002 01948 filed 12/19/2002 and DENMARK PA 2003 01424 filed 9/30/2003. It is noted, however, that applicant has not filed a certified copy of the applications as required by 35 U.S.C. 119(b).

Information Disclosure Statement

8. The information disclosure statement (IDS) submitted on 4/14/2008 has been considered by the examiner.

Drawings

9. The drawings filed 6/16/2005 are acceptable.

Claim Rejections - 35 USC § 112-Second Paragraph

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. **Claims 79-86, 88-104 and 118-127 are rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 79 recites the limitation "said polynucleotide". The claim is indefinite because it is unclear if "said polynucleotide" refers to the complementary connector polynucleotide or the connector polynucleotide. Claims 80-86, 88-101 and 104-117 are similarly indefinite.

Claim 79 is drawn to a bifunctional molecule. The claim is indefinite because it is unclear as to what are the essential structures of the bifunctional molecule. Specifically, it is unclear:

- If the bifunctional molecule is comprised of a molecular part formed by the reaction of two elements. The two elements being functional entities and a nucleic acid part;
- if the bifunctional molecule is comprised of a molecular part and a nucleic acid part;
- if the molecule part is distinct from or made from the nucleic acid part because a reaction of functional entities of the nucleic acid part results in the formation of the molecule part (see lines 9-10 of claim 79);
- how the recitation of "obtainable by the method of claim 1" in the preamble limits the structure of the bifunctional molecule.
- how the process of forming the bifunctional molecule recited in the body of claim 79 further limits the method of claim 1 recited in the preamble.

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Claims 80-86, 88-101 and 104-117, 124 and 126 are similarly indefinite.

Claims 79, 80, 82, 83, 85, 86, 88, 89, 91, 92, 94, 95, 100, 119, 120, and 121

each recite the terms "connector" and "complementary connector" to describe the polynucleotides. It is unclear now these terms distinguish the claimed polynucleotides from polynucleotides that are well known in the art. Claims 81, 84, 87, 90, 93, 96, 101-103, 122, 124 and 126 are similarly unclear.

Claims 97, 98, 99 and 100 each recite the term "complementary connector" to describe the claimed polynucleotides. As explained previously, it is unclear how "complementary connector" distinguishes the claimed polynucleotides from polynucleotides that are well known in the art. Claim 101 is similarly unclear.

Claim 104 twice recites the phrase "e.g." meaning "for example" rendering the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 104 recites the broad recitation of possible molecules comprising the bifunctional molecule, and the claim also recites preferable embodiments which are a narrower statement of the limitation. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render

a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

Claim 104 recites three improper Markush Groups listing molecules, types of bonds or types of backbones. The Markush Groups are improper because the species of each do not share a single structural similarity. Further, one of ordinary skill cannot envision all of the members of the claimed Markush Groups because of the significant number of species and/or combinations of species listed. Therefore, the claim is indefinite because the metes and bounds of the claim are unclear.

Claim 104 is indefinite because it is unclear whether the three "wherein" clauses limit the claimed bifunctional molecule in the alternative or whether the "wherein" clauses further limit one another.

Claim 104 is indefinite because it is unclear whether the functional entities are required to be linked by a chemical bond selected from the list provided in the second "wherein" clause. The claim currently uses the phrase "can be".

Claims 118, 119, 120 and 121 are each drawn to a bifunctional molecule "comprising a molecule part formed by reaction of functional entities and a nucleic acid part". The claims are indefinite because it unclear whether the bifunctional molecule is comprised of a molecule part or if it is comprised of a molecule part and nucleic acid part. Claims 123, 125 and 127 are similarly indefinite.

Claim Interpretation

12. Claim 79 is the independent claim from which a majority of the instant claims depend. The claim is given the broadest reasonable interpretation in view of the indefinite claim language as discussed above.

The complementary connector polynucleotide and connector nucleotide are interpreted as being generic polynucleotides, because as explained above, the terms "complementary connector" and "connector" provide no identifiable structure or relationship between the claimed polynucleotides. Further, the specification provides no limiting definition for the terms.

As noted above, it is unclear how the molecular part is distinct from the nucleic acid part. Because a reaction of the function entities comprising the nucleic acid part forms the molecular part (claim 79, lines 9-10), a polynucleotide with a reacted functional entity is considered to encompass the molecular part.

In summary, the bifunctional molecule of Claim 79 is interpreted as being comprised of a nucleic acid part with at least 4 polynucleotides that are hybridized. The polynucleotides are comprised of at least one functional entity that has reacted forming a molecule part.

Claim 118 recites "building block polynucleotide". The term "building block" does not appear to distinguish the claimed polynucleotide from other polynucleotides known in the art. Claims 119-121 contain similar claim language as Claim 79 and are interpreted similarly.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. **Claims 79-86, 88-96, 102-104, 118-127 are rejected under 35 U.S.C. 102(e)** as being anticipated by Liu at el (U.S. PGPub. 2003/0113738 filed 3/19/2003; hereafter Liu).

15. Note: The claims are written sufficiently broad and indefinite to encompass numerous products. The specification does not provide a limiting definition of the terms used in the claims. Thus, the following rejections are based on the Examiner's reasonable interpretation outlined above.

Regarding claim 79, Liu teaches a bifunctional molecule comprised of at least four polynucleotides identified as templates and transfer units (*¶* 0082). The templates are made of nucleic acids (*¶* 0086) forming polynucleotides. The transfer units are comprised of two components: a) a polynucleotide (*i.e. anti-codons*) that hybridizes to (*i.e. recognizes*) the template and b) a functional entity comprised of at least one reactive groups (*i.e. reactive unit, ¶* 0095). As depicted in FIG. 3, at least four of the

transfer units are hybridized to a template and the molecule part is formed by the reaction (*i.e. polymerization*) of the reactive unit (*as described in ¶ 0082*).

Claims 80-86 and 88-96 are drawn to various embodiments of bifunctional molecules that are comprised of at least “n” number of polynucleotides and complementary polynucleotides. The number of polynucleotides required by the claims ranges from at least 3 to at least 6. The number of complementary polynucleotides required by the claims ranges from at least 2 to at least 10.

Liu teaches polynucleotides (*i.e. templates, ¶ 0113*). Liu teaches providing from 2 to 10^{15} polynucleotides (*¶ 0112*), thereby anticipating the claimed range of polynucleotides. Liu further teaches complementary polynucleotides (*i.e. transfer units, ¶ 0095*). Liu teaches using one or more transfer units (*¶ 0082*), thereby anticipating the claimed range of complementary polynucleotides. Liu teachings in FIG. 3, a polynucleotide has at least 2 complementary polynucleotides hybridized to it (*described in ¶s 0113 and 114*). When using more than one polynucleotide, it is presumed that at least 2 complementary polynucleotides hybridize to each polynucleotide.

Regarding claim 102 and 103, Liu teaches a composition or plurality (*i.e. library*) of bifunctional molecules (*i.e. members*) that exceeds 10^8 bifunctional molecules, thereby anticipating the claimed range of at least 10^3 bifunctional molecules. See ¶ 0193.

Claim 104 is drawn to a bifunctional molecule wherein the bifunctional molecule is comprised of either:

- a) polycyclic compounds comprising aromatic cycles;

- b) peptide bonds; or
- c) the molecular group "-NHCO-".

Liu teaches a bifunctional molecule is comprised of peptide bonds (*¶ 0192*).

Regarding claims 118, 119, 120 and 121, the terms “building block polynucleotide” and “connector polynucleotides” are being interpreted as referring to any polynucleotide known in the art. Liu teaches a bifunctional molecule comprised of a nucleic acid part comprised of at least 4 polynucleotides (*i.e. transfer units ¶ 0082, depicted in FIG. 3*). At least 2 of the polynucleotides are hybridized by 2 polynucleotides when making the library with 10^8 members (*¶ 0193*). As depicted in FIG. 3, the polynucleotides are not linked by covalent bonds either to each other or the template polynucleotide when hybridized. Liu further teaches the functional entities when reacted are not all linked by or do not all form phosphodiester bonds. This occurs when the forming peptide bonds.

Regarding claims 122 and 123, Liu teaches the formation of cyclic sequence of functional entities (*i.e. macrocyclic peptides ¶ 0192 and macrocyclic library members, ¶ 0193*).

Regarding claims 124 and 125, Liu teaches the functional entities (*i.e. monomer units*) comprise amino acids (*¶ 0102*).

Regarding claims 126 and 127, Liu teaches a bifunctional molecule wherein the molecular part of the bifunctional molecule comprises a small molecule have a molecular weight of less than 1500 g/mol, equivalent to 1500 Daltons (*¶ 0086*).

16. **Claims 79-86, 88-104 and 118-127 are rejected under 35 U.S.C. 102(e) as**

being anticipated by Pederson et al (Pat. No. US 7,727,713; hereafter Pederson).

17. The applied reference has common inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Pederson teaches a bifunctional molecule comprised of at least four polynucleotides (*Figure 26*). The horizontal lines in Figure 26 are templates and the complementing templates made of strings of nucleotides (*col. 42, lines 39-42*). Figure 26d further depicts at least four polynucleotides are hybridized to a template and the molecule part is formed by the reaction of the functional entities (*represented by FE, description in col. 26, line 21 through col. 27, line 18*). The functional entities are not all linked by or do not all form phosphodiester bonds when the functional entities are linked by the reaction of lipid or peptide functional groups (*col. 48, lines 13-35*). Nor are the polynucleotides connected by covalent bonds as depicted in Figure 26. Pederson teaches providing a plurality (*defined as at least two, col. 40, lines 54-56*) of templates (*col. 111, lines 44-50*) and that the templates can be branched (*col. 42, lines 30-35*). Pederson teaches bifunctional molecules comprised of a variety of chemical bonds (*col. 48, lines 13-35*). Pederson teaches a composition or plurality of bifunctional molecules

(*i.e. libraries of templated molecules, col. 75, lines 18-21*) and that the functional entity is an amino acid (*col. 17, lines 50-60*).

18. **Claims 79, 102, 118-121, 124 and 125 are rejected under 35 U.S.C. 102(b)** as being anticipated by Dower (U.S. Pat. 5,770,358 issued 6/23/1998).

Regarding Claim 79, 118, 119, 120 and 121, Dower teaches a bifunctional molecule (*i.e. bifunctional bead material, col. 29, lines 32-34, Fig. 7*) comprised of a molecule part. The instant specification defines a molecule/molecule part as covalently linked functional entities (p. 19, line 27). Dower teaches the covalently linked functional entities are F_{moc}, DMT and carboxyl beads (*Example 3, Fig. 7*). Claims 79, 118, 119, 120 and 121 include additional process language that further defines the molecular part as being formed by a reaction. The patentability of a product does not depend on its method of production. See MPEP 2113.

Regarding claims 102, Dower teaches a composition (*i.e. library*) of bifunctional molecules (*Figs. 1 and 2*).

Regarding Claim 124 and 125, Dower teaches the functional entities comprise amino acid residues (*Fig. 7, col. 30, lines 26-36*).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. **Claims 97, 98, 99, 100 and 101 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Liu at el (U.S. PGPub. 2003/0113738 filed 3/19/2003; hereafter Liu) in view of Cubicciotti (U.S. Patent 5,656,739 issued 8/12/1997).

Liu teaches a bifunctional molecule comprised of at least four polynucleotides identified as templates and transfer units (*¶* 0082). The polynucleotides templates made of nucleic acids (*¶* 0086). The transfer units are comprised of two components: a polynucleotide (*i.e. anti-codons*) that hybridize (*i.e. recognize*) to the template and a functional entity comprised of at least one reactive groups (*¶* 0095). The functional entity is identified by Liu as the reactive unit (*¶* 0095). As depicted in FIG. 3, at least four of the transfer units are hybridized and the molecule part is formed by the reaction or polymerization of the reactive unit (*described in ¶* 0082). As noted previously, Liu teaches a bifunctional molecule comprised of a number of polynucleotides that are included in the claimed ranges and that these polynucleotides hybridized (*described in ¶s* 0082, 112-114).

Liu does not teach that some of the polynucleotides are branched polynucleotides.

However, Cubicciotti teaches nucleotide-assembly of biomolecular and multimolecular drugs (*Abstract*). Cubicciotti teaches polynucleotides that include branched-chain structure having defined sequence segments capable of hybridizing to another polynucleotide identified as a second defined sequence segments.

It would have been obvious to the ordinary artisan at the time of invention to incorporate the branched polynucleotides as taught by Cubicciotti within the bifunctional

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molecule taught by Liu because branched DNA are routinely used as a carrier for accommodating large numbers of labels (*Cubicciotti, col. 2, lines 23-41*). This would allow for the detection and identification of the bifunctional molecule after formation.

There is a reasonable likelihood of success because both inventions are in the field of bifunctional molecules.

Double Patenting

21. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

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be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

22. Claims 79, 102, 118-121 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 117-144 of U.S. Patent No. 7,413,854. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets are drawn to a bifunctional molecule comprised of hybridized polynucleotides with a reacted functional group that forms a molecular part or molecule. Patent '854 uses the term "oligonucleotide" in place of polynucleotide. Both claims are additionally drawn to a library of bifunctional molecules. Patent '854 uses the term "bifunctional complexes" in place of bifunctional molecule.

23. Claim 102 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 30-40 and 45 of allowed Application No. 12/330,709. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets are drawn to a composition or plurality of bifunctional molecules. Application '709 uses the term "library" in place of plurality.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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24. Claims 79, 102, 118-121 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 140 and 161 of copending Application No. 12/095,778. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets are drawn to a bifunctional molecule comprised of hybridized polynucleotides with a reacted functional group that forms a molecular part or molecule. Application '778 uses the terms "bifunctional complex" and "oligonucleotides" or "anti-tags" in place of bifunctional molecule and polynucleotides, respectively. Both claim sets are additionally drawn to a plurality of bifunctional molecules. Application '778 uses the terms "library" and "bifunctional complexes" in place of plurality and bifunctional molecules, respectively.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

25. Claims 79 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 43- 51 and 54-63 of copending Application No. 12/179,323. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets are drawn to bifunctional molecules comprised of hybridize polynucleotides with reacted functional entities that form a molecule part. Application '323 uses the term "bifunctional complex", "templated molecule" and complementary template in place of bifunctional molecule, molecular part and polynucleotide, respectively. Both claim sets are additionally drawn to a library of bifunctional molecules. Application '323 uses the term "bifunctional complexes" in place of bifunctional molecules.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

26. No claims allowable over the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH DAUNER whose telephone number is (571)270-3574. The examiner can normally be reached on Monday-Friday, 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Nguyen can be reached on 571-272-0731. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/JOSEPH G. DAUNER/
Examiner, Art Unit 1634

/BJ Forman/
Primary Examiner, Art Unit 1634